

CITY OF MOUNTAIN VIEW  
MEMORANDUM

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DATE: September 22, 2011

TO: City Council

FROM: Lori Topley, Solid Waste Program Manager  
Cynthia Palacio, Senior Administrative Analyst

SUBJECT: SEPTEMBER 27, 2011 STUDY SESSION—ZERO WASTE PLAN UPDATE  
AND SERVICES FOR NEW COLLECTION AGREEMENT

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**PURPOSE**

The City's current solid waste and recycling collection agreement with Recology<sup>TM</sup> Mountain View expires on April 26, 2013. On June 28, 2011, the Council directed staff to negotiate a new agreement with Recology for the time period of April 2013 through October 2021. The City reserves the right to initiate a process to solicit bids for a new collection agreement from other providers if the City and Recology do not reach mutually acceptable terms for a new agreement by January 31, 2012.

The purpose of this Study Session is to provide Council with an update on the work of the Zero Waste Plan, present results of residential and business customer surveys, and review potential collection services for the new agreement. Council feedback on the potential new collection services will be used by staff, along with the Zero Waste Plan and customer survey information, to develop a scope of services to include in a Request for Proposal to be provided to Recology.

**INTRODUCTION**

Preparation of a comprehensive Zero Waste Plan is one of the goals included in the Environmental Sustainability Action Plan (ESAP) adopted by the City Council in February 2009. Development of the Plan has been under way for several months. To date, two community input meetings have been held, random sample surveys of single-family, multi-family and commercial customers have been conducted, and staff is completing its work to identify opportunities to increase waste diversion.

The Zero Waste Plan and the new collection services agreement are connected, but not the same. Diversion potential, as analyzed in the Plan, should be used to consider which collection services to include in the new agreement, but the final Zero Waste Plan will also cover other aspects of discards management that have little or nothing at all to

do with the collection service provider. Conversely, the selection of collection services will reflect a wider variety of factors than just diversion potential and greenhouse gas (GHG) emission reductions, such as customer convenience and cost. This report provides information about both zero waste planning and collection services, but the focus for the Council at this time is on collection services. A draft Zero Waste Plan will be reviewed by Council at a later date. This report is organized into three sections:

1. Solid Waste in Mountain View

- Current Collection Programs—An overview of services provided by Recology.
- SMaRT Station®—An overview of the SMaRT Station's role in current and future diversion programs.
- Composition of Mountain View's Waste—What residents and businesses are throwing away.

2. Zero Waste Plan Update

- Framework—Vision, Goals and Greenhouse Gas Emissions
- Community Input—Meetings and random sample customer surveys.
- Diversion Program Analysis—Preliminary analysis of key diversion program options.

3. Potential Collection Services

- Services for diversion.
- Services for convenience.
- Services offered by Recology.

## **SOLID WASTE IN MOUNTAIN VIEW**

### **Current Collection and Disposal Services**

Mountain View's solid waste and recycling collection, processing and disposal system is made up of services provided by four separate entities under different contracts.

- Recology Mountain View—Collect garbage and recycling from residences, businesses and schools, and haul materials to SMaRT Station, Sunnyvale; provide a local recycling center. Contract expires April 2013.
- SMaRT Station—Process waste to remove recyclables, market recycled materials, transfer waste to Kirby Canyon Landfill, operate drop-off and buy-back center. Contract expires October 2021.
- Kirby Canyon Landfill—Waste disposal. Contract expires October 2021.
- GreenWaste Recovery/ZBest—Pilot program for the composting and marketing of commercial food scraps. Contract expires April 2013.

The City's agreement with Recology is the focus of this report. Attachment 1 provides more detailed information regarding the services Recology currently provides in Mountain View.

### **The SMaRT Station**

The SMaRT Station is an important piece of the total Mountain View waste-handling system. Created through a partnership between the Cities of Mountain View, Palo Alto and Sunnyvale in 1993, the SMaRT Station is one of the largest materials recovery facilities (MRF) in the United States. All waste and recyclables collected by Recology are brought to the SMaRT Station and processed to remove recoverable materials prior to being sent to Kirby Canyon Landfill in San Jose for disposal.

The SMaRT Station also provides processing and marketing services for Mountain View's residential and commercial recyclables and yard trimmings. As the managing partner, Sunnyvale and the contracted operator determine what items are accepted for recycling based on market demand, diversion potential and cost-efficiency.

In addition, the SMaRT Station provides a host of other services for residents of the three cities, including:

- Recycling drop-off and beverage container redemption;

- E-waste, universal waste (e.g., bulbs and batteries) and special products (e.g., auto batteries, motor oil, cooking oil) recycling;
- Free compost and mulch pick-up; and
- Confidential paper shredding (three times per year).

Additional information about the SMaRT Station can be found in the attached brochure (Attachment 2).

The SMaRT Station diverts about 15 percent to 18 percent from the trash before it heads for the landfill (this does not include recyclables and yard trimmings sorted separately by residents and businesses). This number is expected to increase to 25 percent or more with full implementation of the new MRF processing equipment sometime in early 2012.

The SMaRT Station will be an important key to a zero waste future. While source-separation programs, such as curbside collection of recyclables, yard trimmings and possibly food scraps, will continue to play an important role in diversion, further processing of waste at the SMaRT Station will be necessary to increase diversion significantly. The primary focus will be on "MRF residuals," the waste remaining after being processed to remove recyclables. MRF residuals currently contain a large amount of compostable materials (45 percent compostable paper and 9 percent food). The most proven option for processing highly organic MRF residuals is composting, and there are facilities potentially available to compost these materials. Other technologies are emerging, including anaerobic digestion and noncombustion thermal technologies, such as pyrolysis and gasification. These technologies are in their infancy and potentially expensive. However, because of their high diversion potential, they may prove to have a reasonable cost per ton diverted. Due to the expiration of the SMaRT Station partnership among the three cities in 2021, there is little remaining time to amortize new infrastructure. The three cities will continue to discuss use of the SMaRT Station to increase diversion. A formal meet-and-confer process to discuss the future of the facility beyond the 2021 expiration will begin in 2016, as provided for in the MOU.

#### Waste Composition

A detailed composition study of Mountain View's waste was completed in November 2010. Understanding the composition of the waste stream is useful when planning future waste-reduction and diversion programs. Generally, about two-thirds (2/3) of Mountain View's waste is generated by businesses and construction sites and one-third (1/3) is generated by residential customers. Before being processed at the



SMaRT Station, the most prevalent materials being disposed by residents and businesses (as trash, not recyclables), by weight, include food (27 percent), compostable paper (9 percent), yard trimmings (5 percent) and cardboard (5 percent).

Attachment 3 provides additional information about Mountain View's waste composition. The complete study can be found on the Zero Waste page of the City's web site at [www.mvrecycle.org](http://www.mvrecycle.org).

### **ZERO WASTE PLAN UPDATE**

While the Zero Waste Plan is not yet complete, sufficient progress has been made to provide an update to Council and to help inform decisions regarding the solid waste collection services agreement. Portions of the draft plan are summarized below, and additional information is provided in the following attachments:

- Attachment 4: Vision and Goals
- Attachment 5: Greenhouse Gas Emissions
- Attachment 6: Community Meetings
- Attachment 7: Community Surveys
- Attachment 8: Key Diversion Program Analysis

#### **Vision and Goals**

A draft vision statement was provided for review at two community input meetings. This vision statement, presented below, was recommended by the County-wide Recycling and Waste Reduction Commission (RWRC) for consideration by the County and all the cities in Santa Clara County to provide a consistent vision regarding zero waste.

#### **Zero Waste Vision**

By 2025,<sup>1</sup> all discarded materials in Mountain View are recovered for their highest and best use, and no materials are sent to landfills or incinerators.

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<sup>1</sup> The RWRC vision statement included a 2020 date.

To achieve this vision, the City will work to:

1. Educate and engage businesses, organizations, public agencies and residents.
2. Adopt and implement supporting policies and Zero Waste Action Plans.
3. Support legislation and adopt policies that require minimized environmental impacts through improved product design.
4. Ensure that facilities and infrastructure are in place to properly manage all recovered materials.

Similar to the concept of "zero accidents" in the workplace, the intent of the vision is to set a bold standard to guide the City's efforts. Whether or not the vision is appropriate for Mountain View is open to further discussion by the Council and community. Most zero waste communities have adopted a 90 percent diversion goal, a commonly accepted standard of "zero waste."

For Mountain View, two goals are proposed to measure the City's progress towards the Zero Waste Vision:

1. By 2015, Mountain View residents and businesses will divert 80 percent of materials from landfill.
2. By 2020, Mountain View residents and businesses will divert 90 percent of materials from landfill.

As noted, the draft vision and goals are still subject to further refinement and may need to be modified during preparation of the final plan to correspond with City Council direction, public input, program requirements and the City's contractual commitments with third parties. Attachment 4 provides additional information about the draft vision and goals.

Reaching the proposed zero waste goals will be very challenging because Mountain View has already achieved a very high diversion rate (73 percent).<sup>2</sup> Mountain View recycles the most common materials with good market value, and follows many waste-reduction best practices. Therefore, the remaining waste may be more difficult and expensive to collect, process or find viable and sustainable markets for. In addition, some needed measures are outside the control of a local jurisdiction (such as "extended

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<sup>2</sup> Four-year average.

producer responsibility," where manufacturers take responsibility for creating products that can be reused or recycled).

The 80 percent and 90 percent diversion goals are not a regulatory mandate and there are no financial or other penalties for failing to meet them. Programs and measures to increase diversion can be implemented over a period of time to allow the benefits and costs of each to be fully evaluated. The table below provides a snapshot of what would be required in terms of reduced landfill disposal to reach the goals:

	Annual Disposal to Landfill	Equivalent Diversion Rate	Time Period
4-Year Disposal Average	56,600 Tons	73%	Now
Interim Zero Waste Goal	<42,000 Tons	80%	By 2015
Minimum Zero Waste Goal	<20,000 Tons	90%	By 2020
Minimum Necessary Decrease in Disposal	36,600 Tons	Close the 17% gap	By 2020

#### Greenhouse Gas Emissions

Zero waste was identified by the ESAP as a measure to help reduce community-wide greenhouse gas emissions. Every stage of a product's life cycle requires the use of natural resources and the consumption of energy, activities that result in the release of GHGs. Therefore, zero waste efforts that encourage such practices as preventing waste, reducing use of raw materials, reusing products, recycling and composting all contribute to the reduction of GHGs. Achieving zero waste will play a significant role in reducing GHG emissions accounted for in the City's community inventory. The inventory includes 14,900 metric tons CO<sub>2</sub> equivalent (MTCE) from land disposal of new material in 2005. Meeting a 90 percent diversion target through the Zero Waste Plan will reduce GHGs by approximately 9,400 MTCE.

Attachment 5 provides additional information about GHG emissions related to solid waste and Mountain View's Zero Waste Plan.

### Community Input Meetings

Two community input meetings were held inviting residents to help develop a plan to reduce Mountain View's waste. On April 21, 2011, 20 people learned about existing programs and zero waste planning, participated in a question and answer session, and provided comments. Comments included support for reuse activities like building supply salvage and appliance repair; a request for multi-family yard trimmings service; support for bans on hard-to-recycle products like single-use plastic bags and foam food take-out containers; appreciation for trash sorting at the SMaRT Station and a desire to increase recovery of compostable materials there; and support for joining Palo Alto in the effort to develop anaerobic digestion to generate renewable energy.

On August 30, 2011, 12 people reviewed preliminary findings about key zero waste opportunities, provided feedback in small groups and took a customer survey. During the feedback session, participants indicated their support for weekly recycling and yard trimmings service. There was a lot of discussion about the various trade-offs of recovering compostable materials, with curbside collection indicated as a first choice option and increasing recovery at the SMaRT Station a second choice. Most indicated a willingness to pay up to \$5 per month more for zero waste programs, and all supported bans on single-use plastic bags and foam food take-out containers.

More detail about the input meetings is provided in Attachment 6.

### Customer Surveys

Three on-line surveys were conducted to gauge interest among residents and businesses about services and programs. The surveys were not just about zero waste and diversion. They also asked questions addressing collection service factors such as convenience and rate impacts. Persons without Internet access were able to complete the survey over the telephone. Attachment 7 provides a detailed summary of the single-family, multi-family and business survey results. Highlights are presented below.

#### *Single-Family Survey*

Two hundred fourteen (214) responses were received from a random sample of 1,000 households residing in single-family homes (one- to four-unit dwellings).

- 59 percent **are not** interested in receiving weekly recycling services and 62 percent **are not** willing to pay more for weekly services.



- 60 percent **are not** interested in receiving weekly yard trimming services and 67 percent **are not** willing to pay more for weekly services.
- 70 percent **are** likely to participate in weekly food scraps collection with their yard trimmings, but 51 percent **are not** willing to pay more for food scraps services.
- More than half **are** interested in some of the service options offered by Recology, if provided at no extra cost:
  - Curbside collection of compact fluorescent bulbs (79 percent).
  - Curbside collection of gently used clothing for donation (61 percent).
  - Annual or semiannual Reuse Day Event—local drop-off of gently used clothing, furniture, toys, books and pick up free compost (61 percent).
  - Annual or semiannual E-Waste Day—local drop-off of computers, cell phones, compact fluorescent bulbs, etc. (84 percent).
- 66 percent **are** willing to pay at least \$1 more per month for all the new or improved services mentioned in the survey.

#### *Multi-Family Survey*

Nineteen (19) responses were received from a random sample of 300 households residing in multi-family dwellings (five or more units) and language assistance was offered. The response rate does not provide a high level of confidence in the results, and staff will consider additional methods of obtaining feedback from multi-family residents.

- 71 percent **are either not** interested in receiving (47 percent) or already have weekly recycling service (24 percent).
- 52 percent **are** interested in receiving yard trimmings collection service.
- 61 percent **are** likely to participate in a food scraps collection program.
- More than half **are** interested in most of the service options offered by Recology, if provided at no extra cost:
  - Collection of household batteries (83 percent).
  - Collection of cell phones (65 percent).

- Collection of used cooking oil (65 percent).
- Collection of gently used clothing for donation (83 percent).
- Collection of compact fluorescent bulbs (78 percent).
- Annual or semiannual Reuse Day Event—local drop-off of gently used clothing, furniture, toys, books and pickup free compost (78 percent).
- Annual or semiannual E-Waste Day—local drop-off of computers, cell phones, compact fluorescent bulbs, etc. (83 percent).

#### *Business Survey*

Sixty-four (64) responses were received. The surveys were e-mailed to approximately 1,000 businesses by the City's Economic Development staff, the Chamber of Commerce and the Central Business Association. There were likely duplications between the mailing lists.

- 60 percent indicated their business has a zero waste or waste-reduction goal.
- 50 percent either **already are or are likely** to participate in a food scraps collection program.
- 52 percent **are** interested in receiving additional assistance setting up and maintaining recycling programs.
- 62 percent **are not** willing to pay more, in total, for new or improved services.

#### **DIVERSION PROGRAM ANALYSIS**

Staff is identifying and analyzing various program options for the Zero Waste Plan. Some of these programs represent zero waste opportunities, while others meet other criteria such as customer convenience. The results of the preliminary analysis are presented in Attachment 8 and summarized below.

### Evaluation Criteria

The following criteria are used in the program analysis.

**Diversion Potential**—Measures the relative role the program can play in reaching zero waste. The estimates reflect the waste characterization data and the experience of dozens of Bay Area communities in implementing these programs and are realistic planning-level estimates of the potential for diversion. For those programs related to collection services, Recology's proposal will include its own diversion assumptions based on its knowledge of Mountain View and experience in providing these programs in other communities.

High (H): Diverts >2,600 tons per year, or >5 percent of the material now sent to landfill.

Medium (M): Diverts 1,050 to 2,600 tons per year, or 2 percent to 5 percent of the material now sent to landfill.

Low (L): Diverts <1,050 tons per year, or <2 percent of material sent to landfill.

**Cost Benefit**—Measures the relative benefit of the program in dollars per ton of material diverted and is based on information from many competitive procurements and negotiations, and from rate reviews conducted for other Bay Area communities. A High ranking means a relatively low cost per ton diverted. The definitions of the ranges are not provided at this time since staff does not wish to inadvertently influence Recology as they are preparing their detailed cost proposal.

**Customer Convenience**—Degree to which enhanced customer convenience is a primary reason to add a program. A High ranking means a relatively high level of enhanced customer convenience.

**Behavior Change**—Degree to which a new or modified program provides the opportunity for positive behavior change towards zero waste, e.g., by increasing direct participation of residents or businesses in recycling and compostables recovery. A High ranking means a relatively higher potential for behavior change.

**Ease of Implementation**—Degree to which the program is easy or difficult to add, in terms of requiring changes to third-party contracts and agreements (like the SMaRT Station), level of public outreach and education, coordination between the City and hauler, etc. A High ranking means a relatively simple implementation.



### Program Analysis

The highlights of the preliminary analysis of a number of programs, using the evaluation criteria described above, is presented below. To more fully understand the results and their meaning, a detailed analysis is provided in Attachment 8.

#### **Key Potential Yard Trimmings Programs**

	<b>Diversion Potential (Tons)</b>	<b>Cost Benefit</b>	<b>Customer Convenience</b>	<b>Behavior Change</b>	<b>Ease of Implementation</b>
Single- Family Weekly Collection	Low (340)	Low	High	Medium	High
Enhanced Multi-Family Collection— -BiWeekly	Low (680)	Medium	Medium	Medium	Medium
Multi-Family Holiday Tree Collection	Low (negligible)	High	High	Medium	High

#### **Key Potential Food Scrap Programs**

	<b>Diversion Potential (Tons)</b>	<b>Cost Benefit</b>	<b>Customer Convenience</b>	<b>Behavior Change</b>	<b>Ease of Implementation</b>
Single-Family Yard Trimmings with Food Scraps— Weekly	Low (710)	Low	Medium	High	Low
Multi-Family Yard Trimmings with Food Scraps— Weekly	Low (490)	Low	Medium	High	Low
New Commercial Organics Program	Medium (1,250)	Medium	Low	High	Medium



### Key Potential Recyclable Materials Programs

	Diversion Potential (Tons)	Cost Benefit	Customer Convenience	Behavior Change	Ease of Implementation
Universal Recycling for Multi-Family	Low (560)	High	High	High	High
Universal Recycling for Commercial	Medium (1,200)	High	High	High	High
Single-Family Weekly Collection	Low (430)	Medium	High	Medium	High
Multi-Family Weekly Collection	Low (100)	Low	High	Medium	High
Adding New Recyclables—Single-Family	Low (90)	High	Medium	High	Medium
Adding New Recyclables—Multi-Family	Low (80)	High	Medium	High	Medium
Adding New Recyclables—Commercial	Low (350)	High	High	High	Medium
Commercial Rerouting	High (2,845)	High	Medium	Low	High

The analysis shown in the tables above focuses on programs that collect material at the source. Facility processing is also an important consideration, especially for compostables diversion. There are two ways in which compostable materials can be separated and processed. The first is to process the trash inside the SMaRT Station (discussed below), and the second is to compost some portion of what is now sent from the SMaRT Station to the Kirby Canyon Landfill (discussed in the next section).

At the SMaRT Station (a Material Recovery Facility or "MRF"), the material from trash carts and trash bins is processed to recover valuable materials. "MRF fines," a material rich in organic matter, accounted for about 2,300 tons or almost one-third of what was recovered in 2010. MRF fines are small pieces of food, leaves, grass, paper, etc., that are less than 2" in diameter and that are recovered while the garbage is processed in a giant trommel (rotating drum). This material is collected and sent off-site for composting. Planned near-term improvements in processing equipment have the potential to increase Mountain View's diversion of fines over the next year to between 6,800 and 7,300 tons.

## Getting to 80 Percent Diversion

### *Maximizing Existing Programs*

Near-term zero waste efforts will focus on a combination of maximizing the effectiveness of current source-separation programs and maximizing recovery at the SMaRT Station. Diverting compostable materials will be of primary importance because they comprise the largest portion of the material that Mountain View residents and businesses send to the SMaRT Station. About 44 percent of the material collected from Mountain View's solid waste carts and bins is compostable. Recyclable materials are also in the waste stream, with recyclable paper alone making up 14 percent of disposed materials.

Examples of maximizing the effectiveness of current separation programs include:

- Expanding yard trimmings service to multi-family complexes;
- Implementing universal recycling for multi-family and commercial programs (the hauler contacts every business and complex and provides recycling containers and assistance to make sure they have little or no reason not to recycle);
- Not servicing trash containers if a collectable amount of yard trimmings or cardboard are visible in the container after warnings (the hauler would contact customer for correction);
- Adding to the types of recyclables accepted either through collection or drop-off; and
- Increasing education, outreach, technical assistance and enforcement.

### Adding New Programs

Some new programs may also be desirable, though some will be relatively expensive or complex, so perhaps not implemented immediately. For example, a residential food scraps collection program, where residents place food scraps in the yard trimmings cart, is a relatively low-diversion, high-expense program. Its implementation would be contingent on contracting with a processor (composter) willing to handle the material and possibly handle Mountain View yard trimmings separate from Sunnyvale's and Palo Alto's, should those Cities decide not to implement a similar program. This is a program that may best be added several years into the new collection agreement once these issues are resolved, and following an evaluation of how well other measures are addressing the removal of compostable and recyclable materials from the trash.



Addition of a new commercial food scraps program (i.e., taking the current pilot to a full-scale program in 2013) appears to make more sense from a diversion and cost standpoint because: (1) the diversion potential is higher; and (2) it does not involve modification of existing SMaRT Station contracts.

Moving from biweekly to weekly collection services of recyclables and yard trimmings are also relatively low-diversion, high-cost programs. The analysis indicates that single-family weekly service for recyclables and yard trimmings can increase diversion by about 770 tons per year. While there has been some past community expression of support for weekly programs, 59 percent of the single-family households responding to the survey indicated they were not interested in weekly recycling services, and 60 percent were not interested in weekly yard trimmings service. Over time, getting to zero waste will require implementing a range of programs with decreasing relative cost benefit, and customer convenience may be a key interest for ultimately moving to weekly service, so this may be a longer-term option.

#### Getting to 90 Percent Diversion

Longer-term zero waste efforts will likely focus on a combination of new programs and cost-effective investments to further enhance recovery of materials at the SMaRT Station. Some method of recovering more compostable material from the residuals (composting, anaerobic digestion or some other emerging technology) holds the promise of high diversion, but requires much more exploration and discussion among the SMaRT Station partners.

#### COLLECTION SERVICES

The development of new collection services for 2013 will be guided by zero waste goals, community input regarding both zero waste and considerations such as convenience, cost and Council direction. Information in this report on preliminary results of zero waste analysis and community input is provided as a first step in assisting the Council in deciding which services to include in the new agreement. There will be additional opportunity for Council to review services as development of the new agreement progresses, as noted below. Once proposed pricing is obtained and evaluated, Council can make a final decision regarding which collection services to direct Recology to implement.

The Council has three opportunities to provide direction on collection services:

1. Council feedback on the information presented at this Study Session will be used by staff, along with the zero waste analysis and community input, to develop a draft scope of services to include in a Request for Proposal (RFP) to Recology;
2. The draft RFP, including the scope of services, will be reviewed and approved by the Council later this year;
3. Recology will respond to the RFP with pricing for the scope of services. The Council can then make final decisions about services to be implemented during the approval process for the final agreement (early winter).

Staff envisions that the scope of services for the RFP will be organized into: (1) a base package of services that closely matches what is provided now; and (2) a list of services for which optional pricing is requested. Services for which optional pricing might be requested are those that are likely to be expensive—for example, weekly recycling and residential food scraps. Asking for optional pricing in no way commits the Council to specific programs in 2013, or ever. However, optional pricing allows the flexibility to implement and pay for potential zero waste programs over a period of time, as desired. Obtaining pricing now places the City in the best position to negotiate a favorable price in the future.

#### Potential Collection Services

A list of potential new collection services is provided in Attachment 9. The information in the table provides a means for Council to review and evaluate possible collection services, and includes:

- Diversion potential from the zero waste analysis;
- Community interest as indicated by the random sample surveys;
- Whether implementation will require possible modifications to contractual commitments with third parties (like the SMaRT Station); and
- Whether optional pricing from Recology is suggested.

There are other important factors that will be considered by staff and Council as the final scope of services is developed. For example, while a preliminary cost/benefit analysis was done for some of these services as part of the zero waste analysis, a more



informed cost/benefit analysis can be considered on the basis of cost-per-ton diverted once pricing and projected diversion figures are provided by Recology.

In addition, some services on the list are already available and paid for, or could be provided in alternate ways. For example, Recology has offered to provide curbside collection of compact fluorescent bulbs (CFLs), cooking oil and cell phones. All of these items can currently be dropped off at the SMaRT Station by residents, and the costs of handling those materials are already paid by the City through the SMaRT Station contract. As another example, an alternative to weekly collection of yard trimmings and recyclables would be to more broadly advertise to residents the availability of extra carts to handle excess materials. While duplication of some services may be desirable due to increased customer convenience, they will add cost.

The list of potential services in the table is organized by the following categories:

- Services likely to produce the highest diversion and reduce GHG emissions;
- Services for customer convenience; and
- Services offered by Recology in previous communications to the Council.

#### Services for Diversion

These are services that are worth considering based primarily on their diversion potential. The services in this category are further organized into those that primarily maximize existing programs, and new programs that could be added. The diversion categories indicated in the first column of High (H), Medium (M) and Low (L) correspond to the zero waste evaluation criteria described earlier in this report and in Attachment 8.

It is important to note that diversion potential is only one criterion by which to evaluate potential programs. Programs with low-diversion potential should not necessarily be excluded from further consideration, as they could also have a high cost/benefit potential (meaning the cost to divert per ton of material is relatively low), in which case they can be an important step to reaching 80 percent diversion and beyond.

#### Services for Customer Convenience

These are services that may be worth including based primarily on their customer convenience appeal. Examples include offering collection of holiday trees from multi-family units for no fee and offering a nonmedical backyard collection option for seniors.

### Services Offered by Recology

These are services which Recology offered to provide at no extra cost in several previous communications with the Council (Attachment 10). As noted above, some are already offered through alternative means, such as drop-off at the SMaRT Station, but may be desirable to improve customer convenience. Some, like providing a semiannual green environment day (drop off books, toys, clothes, furniture for reuse/donation, free compost pick-up, drop off computers, cell phones, etc.) rated high in the customer survey and others did not (e.g., home composting bins at a discounted price). While Recology offered these items at no additional cost, Council may be interested in understanding what the related savings to Recology would be of not doing some of the less desirable options and, therefore, how much money would be available for services the City is more interested in receiving. Staff suggests posing this question in the RFP.

### NEXT STEPS/CONCLUSION

Preparation of a Zero Waste Plan is currently under way. Staff is also working on preparing a scope of services for the new solid waste and recyclables collection agreement. Some elements of the Zero Waste Plan and the collection services agreement overlap, but the documents have different purposes and focuses. While diversion potential should be used to consider what services to include in a new collection services agreement, the final Zero Waste Plan must address all of the other aspects of discards management as well. Conversely, the selection of what collection services to include in a new agreement should reflect a wider variety of factors than just diversion potential, such as customer convenience and cost.

Staff requests Council feedback on the potential new collection services presented in Attachment 9. Many services will be requested as part of the bundle of solid waste and recycling services offered to specific customer classifications (i.e., basic service package), but for other services, optional pricing will be requested. Optional pricing allows the Council to choose to implement that service with the new agreement in 2013, later in the contract period or not at all. Obtaining optional pricing now places the City in the best position to negotiate a favorable price in the future.

Staff requests Council direction regarding the questions provided below. The questions are related to services staff believes might be of the greatest interest to Council, either because of their higher costs (i.e., weekly services, food scraps), because they represent a more assertive approach to implementing source-separation programs (i.e., keeping yard trimmings and cardboard out of the trash) or they duplicate services that have other alternatives available (i.e., drop-off services at the Mountain View Recycling Center). Each of the questions is presented with brief information about the benefits and disadvantages.



Staff will use the feedback provided by Council, along with the Zero Waste Plan analysis and survey information, to develop a scope of collection services to include in the Request for Proposal to Recology.

Benefits	Disadvantages
1. Willingness to pay higher monthly rates for enhanced or new services?	
<ul style="list-style-type: none"> <li>▪ Rates may still be relatively low compared to surrounding cities</li> <li>▪ 66% of survey respondents are willing to pay at least \$1 more for all new or improved services mentioned in survey</li> <li>▪ Programs could be added incrementally</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rates will increase</li> </ul>
2. Is there interest in obtaining pricing for weekly recycling or yard trimmings service?	
<ul style="list-style-type: none"> <li>▪ Increases customer convenience</li> <li>▪ Supports City's diversion goals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Low cost benefit</li> <li>▪ More trucks on streets</li> <li>▪ 60% of survey responses are "not interested"</li> </ul>
3. Is there interest in obtaining pricing for weekly residential food scraps with yard trimmings service?	
<ul style="list-style-type: none"> <li>▪ Supports behavior change</li> <li>▪ 70% of survey responses interested</li> <li>▪ Supports City's diversion goals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Low cost benefit</li> <li>▪ More trucks on streets</li> <li>▪ Requires modification of existing SMaRT contracts</li> </ul>
4. Is Council interested providing some services in Mountain View that are already offered at SMaRT?	
<ul style="list-style-type: none"> <li>▪ Increases customer convenience</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pay twice for same service</li> </ul>
5. Which new services Recology offered at no additional cost is the Council interested in implementing?	
<ul style="list-style-type: none"> <li>▪ Recology may be able to apply savings from services not requested to offset cost of other desired services</li> </ul>	<ul style="list-style-type: none"> <li>▪ Missed opportunity to add potentially desirable services at no additional cost to customer</li> </ul>

Benefits	Disadvantages
6. Is there interest in a progressive "no yard trimmings or cardboard in trash" approach to discouraging residents and businesses from throwing away recyclables?	
<ul style="list-style-type: none"><li>▪ Increases diversion</li><li>▪ Supports behavior change</li></ul>	<ul style="list-style-type: none"><li>▪ Requires behavior change/additional effort on part of customer</li></ul>

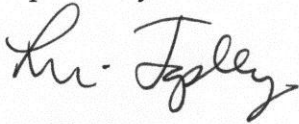
### SCHEDULE

Fall 2011—Council approve Request for Proposal and Draft Agreement.

Winter 2011—Evaluate Recology's Response and Negotiate.

Early 2012—Council approve Agreement Terms.

Prepared by:

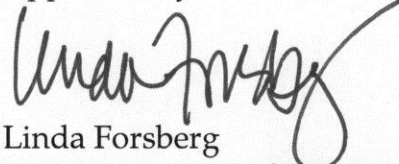


Lori Topley  
Solid Waste Program Manager



Cynthia Palacio  
Senior Administrative Analyst

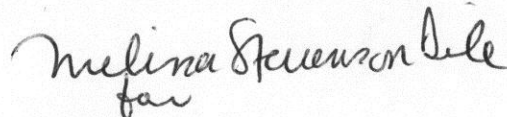
Approved by:



Linda Forsberg  
Transportation and Business  
Manager



Michael A. Fuller  
Public Works Director



Daniel H. Rich  
City Manager

LT-CP/7/CAM  
944-09-27-11M-E^



- Attachments:
1. Current Services Provided by Recology
  2. SMaRT Station Brochure and Annual Report
  3. Waste Composition
  4. Vision and Goals
  5. Greenhouse Gas Emissions
  6. Community Meetings
  7. Community Surveys
  8. Key Diversion Program Analysis
  9. Potential New Collection Services
  10. Letters from Recology to City Council

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# Zero Waste Plan Update and Collection Services

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# Purpose

- Zero Waste Plan Update
  - Goals
  - Waste Composition
  - Diversion Analysis
- Collection Agreement
  - Customer Surveys
  - Potential Services
- Council Feedback to Develop RFP



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# Why Zero Waste?

- “Discards” are potentially valuable resources
- Waste is not inevitable
- Reduce GHGs
  - Community Inventory includes 14,900 MTCE
  - Reaching a 90% diversion target will reduce GHGs by 9,400 MTCE (63% reduction)

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# Proposed Diversion Goal

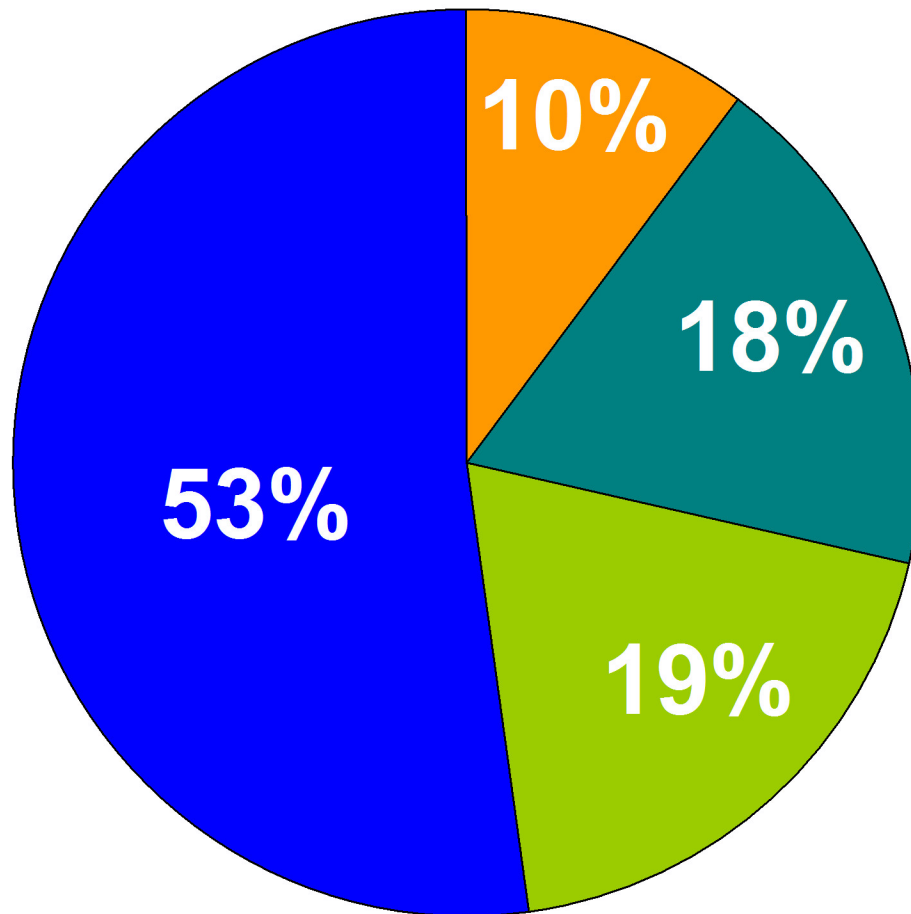
- 90% Diversion – Emerging definition of Zero Waste
- To reach 90% Diversion in Mountain View
  - Current disposal (73%) = 56,600 tons
  - Disposal at 90% = 20,000 tons
  - Reduction Needed = 36,600 tons

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# Waste Composition

- What are residents, businesses and construction sites throwing away
- Hand sort and weigh waste
  - Before processing at SMaRT – Disposed by residents and businesses
  - After processing at SMaRT – Residual headed to landfill
- Group by recoverability – compostable, recyclable, problem materials

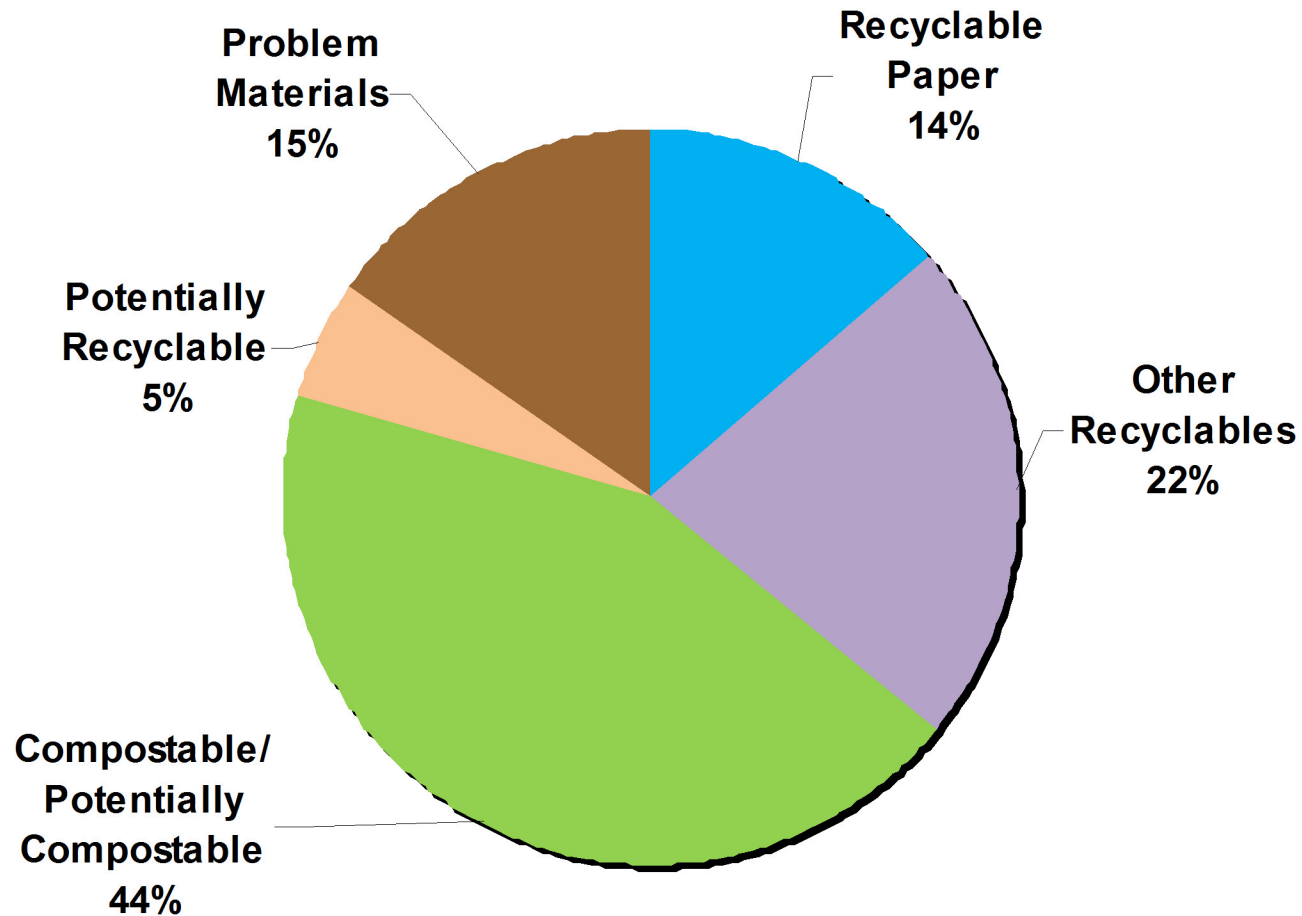
# Waste Generators



Citywide Disposal (tons)	
Commercial	27,783
Multi-family	10,271
Single-family	9,692
C&D	5,500
Total	53,246

# Waste Composition

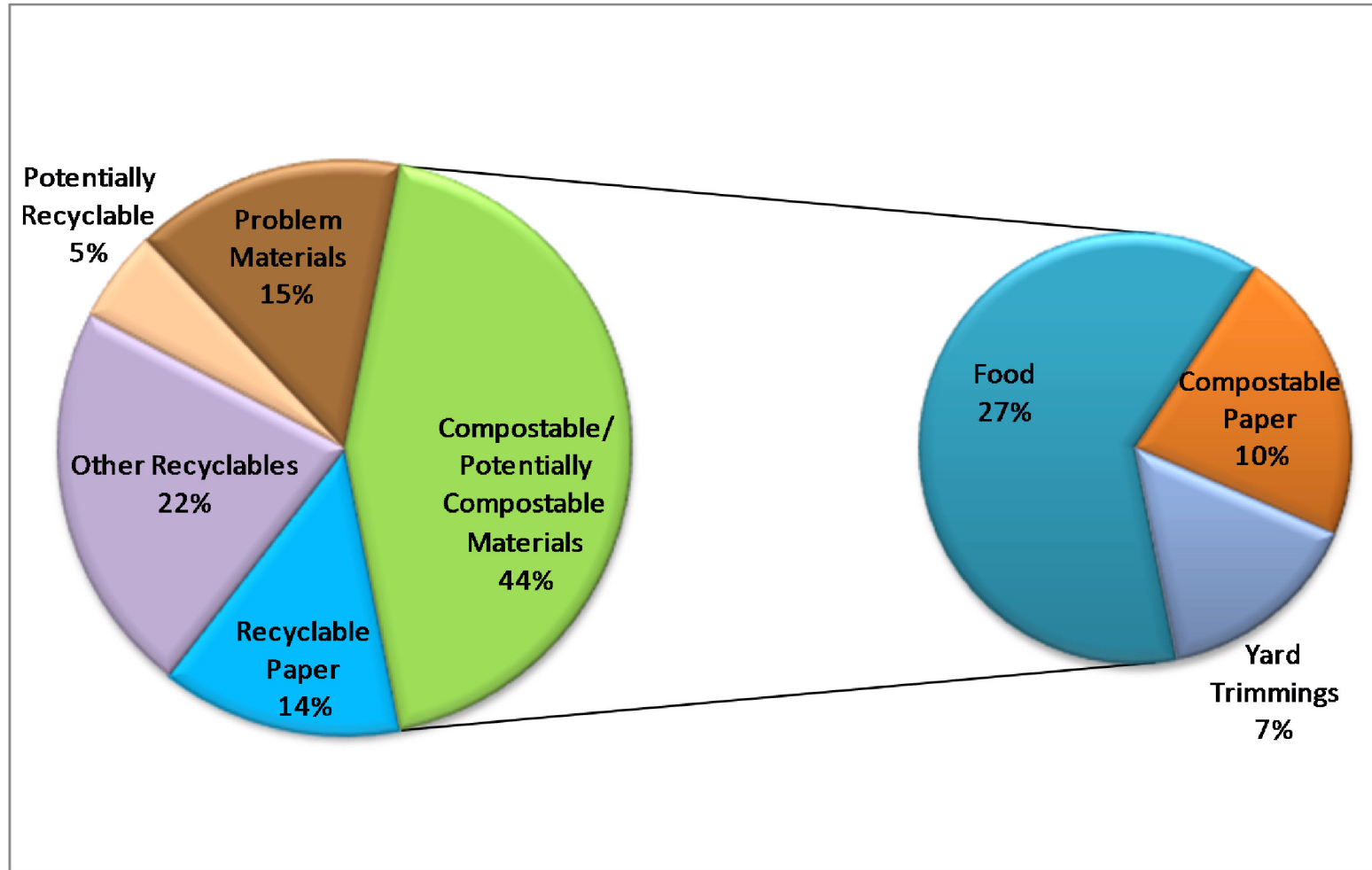
Disposed by Residents and Businesses





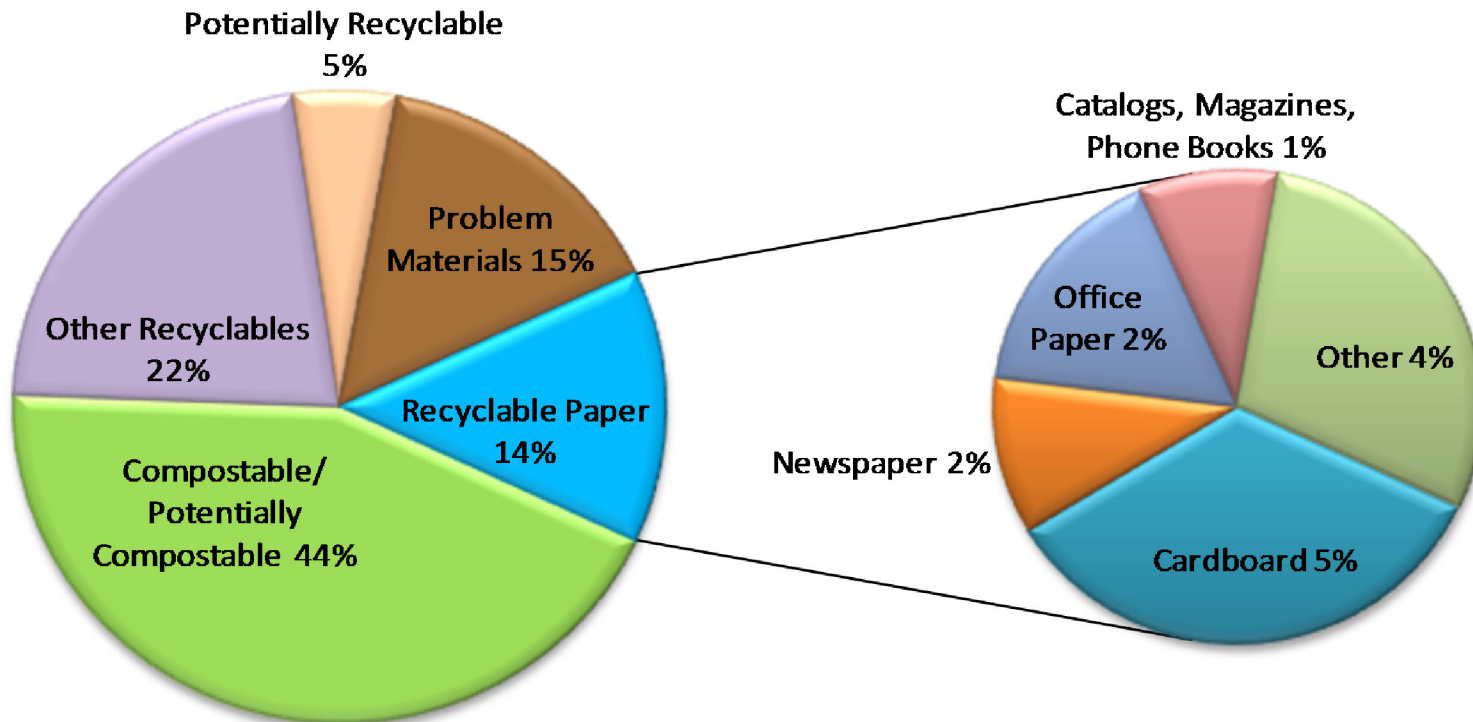
# Compostable Materials

Disposed by Residents and Businesses



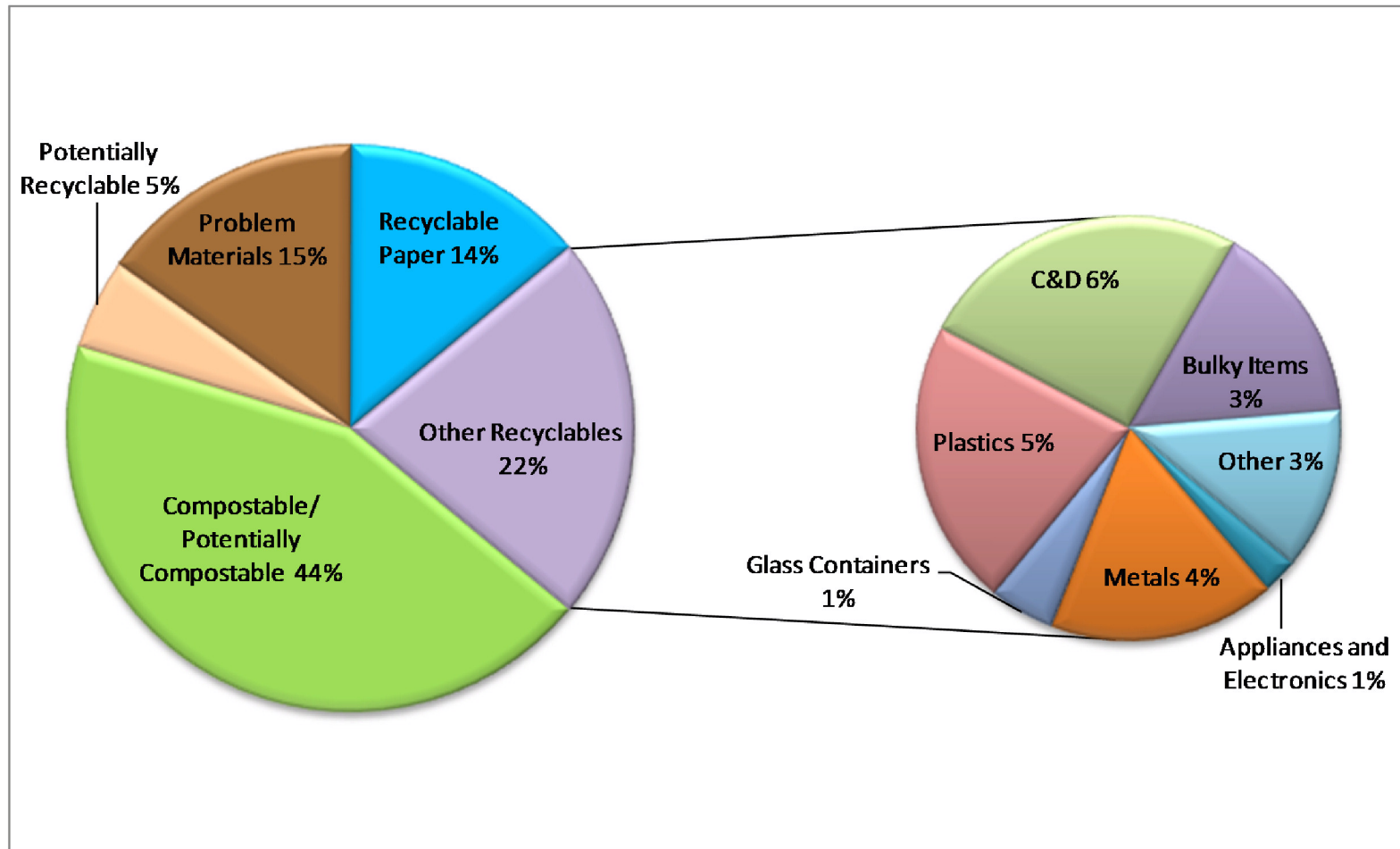
# Recyclable Paper

Disposed by Residents and Businesses



# Other Recyclables

Disposed by Residents and Businesses



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# Diversion Analysis

- Based on waste composition study results
- Most prevalent materials define key diversion programs
- Zero Waste & Collection Service Programs Overlap
- Focus on Collection Service due to expiring contract
- Final Zero Waste Plan will include programs “upstream” of collection

# Diversion Analysis

## Key Potential Yard Trimmings Programs

	Diversion Potential (Tons)	Cost Benefit	Customer Convenience	Behavior Change	Ease of Implementation
Single- Family Weekly Collection	Low (340)	Low	High	Medium	High
Enhanced Multi-Family Collection -Bi-Weekly	Low (680)	Medium	Medium	Medium	Medium
Multi-Family Holiday Tree Collection	Low (negligible)	High	High	Medium	High

# Diversion Analysis

## Key Potential Food Scraps Programs

	Diversion Potential (Tons)	Cost Benefit	Customer Convenience	Behavior Change	Ease of Implementation
Single-Family Yard Trimmings with Food Scraps – Weekly	Low (710)	Low	Medium	High	Low
Multi-Family Yard Trimmings with Food Scraps - Weekly	Low (490)	Low	Medium	High	Low
New Commercial Organics Program	Medium (1,250)	Medium	Low	High	Medium

# Diversion Analysis

## Key Potential Recyclable Materials Programs

	Diversion Potential (Tons)	Cost Benefit	Customer Convenience	Behavior Change	Ease of Implementation
Universal Recycling for Multi – Family	Low (560)	High	High	High	High
Universal Recycling for Commercial	Medium (1,200)	High	High	High	High
Single-Family Weekly Collection	Low (430)	Medium	High	Medium	High
Multi-Family Weekly Collection	Low (100)	Low	High	Medium	High
Adding New Recyclables – Single-Family	Low (90)	High	Medium	High	Medium
Adding New Recyclables – Multi-Family	Low (80)	High	Medium	High	Medium
Adding New Recyclables – Commercial	Low (350)	High	High	High	Medium
Commercial Re-Routing	High (2,845)	High	Medium	Low	High

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# Customer Survey – Single Family

- Weekly Recycling
  - ❑ 59% are not interested
  - ❑ 62% are not willing to pay more
- Weekly Yard Trimmings
  - ❑ 60% are not interested
  - ❑ 67% are not willing to pay more
- Weekly Food Scraps with Yard Trimmings
  - ❑ 70% are interested
  - ❑ 51% are not willing to pay more
- Recology Proposed Services
  - ❑ More than half are interested in some if no extra cost



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# Customer Survey – Multi-family

- Weekly Recycling
  - 71% are either not interested or already have
  - 44% are willing to pay more
- Weekly Yard Trimmings
  - 53% are interested
  - 53% are not willing to pay more
- Weekly Food Scraps
  - 61% are interested
  - 38% split between willing to pay and not willing to pay
- Recology Proposed Services
  - More than half are interested in some if no extra cost

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# Customer Survey - Commercial

- Zero Waste Goals
  - 60% indicated their business has a zero waste or waste reduction goal
- Food Waste Program
  - 50% either already are or are likely to participate
- Technical Assistance
  - 52% are interested in receiving additional assistance setting up and maintaining recycling programs
- 62% are not willing to pay more, in total, for new or improved services

# Getting to 80% - Maximize Existing

## Collection Programs



## SMaRT Processing



## Zero Waste Plan

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# Getting to 80% - Collection Programs

- Maximize existing collection programs
  - ❑ Multi-family yard trimmings service
  - ❑ Universal recycling – every one gets recycling containers and assistance to use them
  - ❑ Add more recyclables
  - ❑ Increase education, outreach, assistance

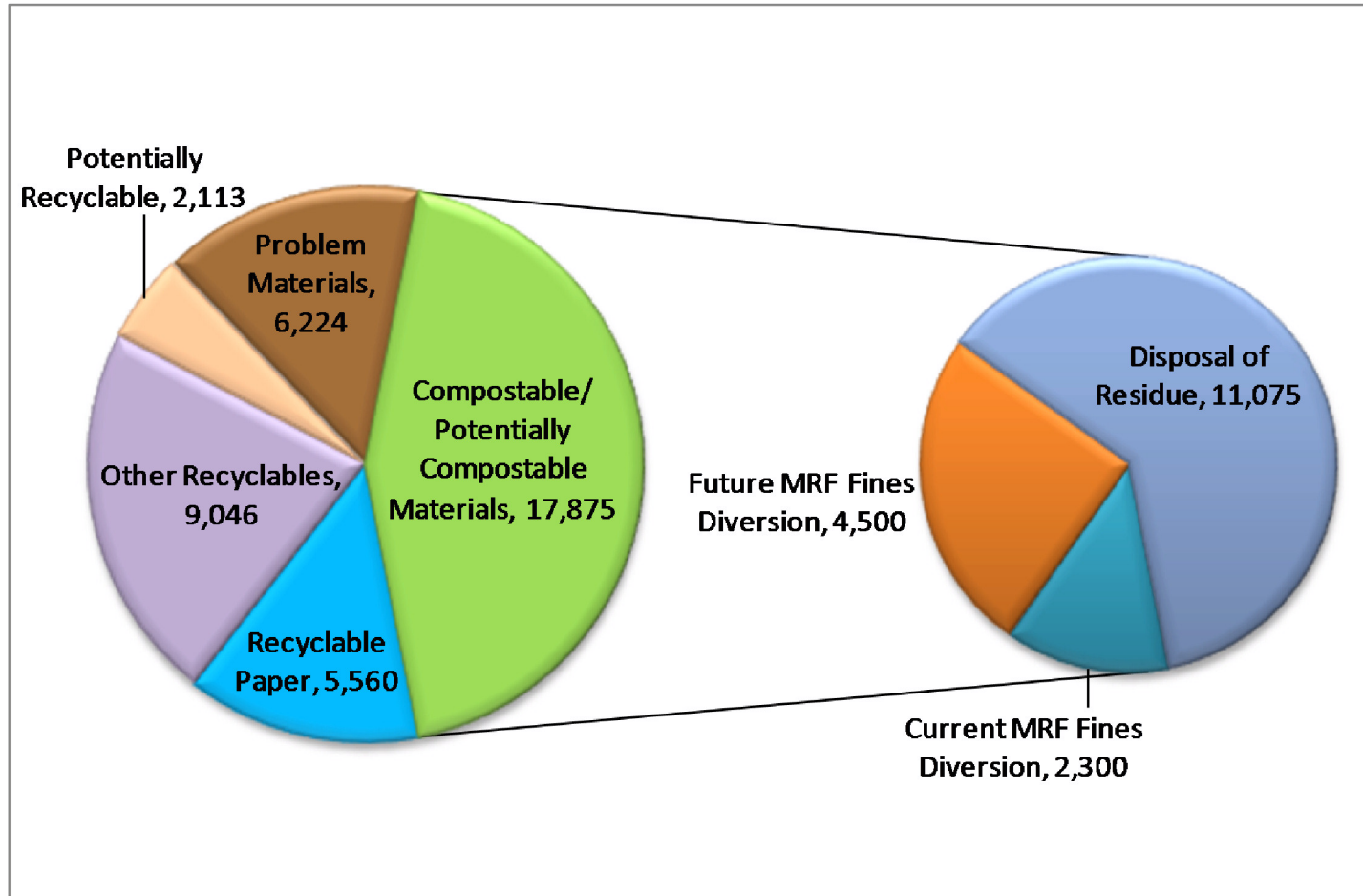


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# Getting to 80% - SMaRT Station

- Maximize use of SMaRT Station
  - MRF fines – near-term improvements to add 4,500 tons diversion
  - New operator incentives
    - Recyclables
    - Construction and Demolition Debris

# Getting to 80% - MRF Fines



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# Getting to 80% - New Programs

- Commercial Food Waste
- Residential Food Waste
- School Revitalization
- Truck Re-routing: keep dry trash separate from wet trash to increase paper recovery
- Multi-family “Move Out” bulky good collection

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# Getting to 90%

- Difficult and/or More Expensive
  - New programs
  - Recover compostables from SMaRT residuals



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# Collection Services

- Review Opportunities
  - Study Session
  - Draft Scope of Services for RFP
  - Final Agreement Approval
- Scope of Services (RFP)
  - Base Package
  - Optional Pricing
    - Refine Cost Benefit
    - Retain Flexibility to add programs later

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# Potential Services

## ■ Considerations

- ❑ Diversion
- ❑ Survey Results
- ❑ Cost Benefit
- ❑ SMaRT Agreements
- ❑ Availability of Other Options

# Services to Increase Diversion

LIST OF POTENTIAL NEW COLLECTION SERVICES	Diversion <sup>1</sup> Potential	SFD <sup>2</sup> MFD COM	Survey <sup>3</sup> Interest	Requires 3rd Party Contract Changes	Request Optional Pricing Recology
<b>DIVERSION &amp; GHG</b>					
<b>MAXIMIZE EXISTING PROGRAMS</b>					
1. <b>Weekly Recycling Cart Service.</b> Provide second set of trucks/drivers to collect weekly.	L	SFD MFD	No 59% No 71%		X
2. <b>Weekly Yard Trimmings Cart Service.</b> Provide second set of trucks/drivers to collect weekly.	L	SFD MFD	No 60% Yes 52%		X
3. <b>Weekly Yard Trimmings Fall Leaves Cart Service.</b> Alternative option if #2 not selected.	NA	SFD			X
4. <b>Yard Trimmings ALL Multi-Family Complexes.</b> Contact every complex and provide technical assistance.	L	MFD	Yes 53%		X
5. <b>Accept More Types of Recyclables.</b> Similar to other cities.	L	SF/MFD COM	Yes 53-64% No 50-70%	X	
6. <b>Universal Recycling.</b> Provide every business and multi-family complex <sup>4</sup> a recycling container, but recycling is not mandatory. Provide technical assistance.	M L	COM MFD			X
7. <b>Technical Assistance.</b> Contact list of businesses, schools, and special events to provide education, outreach and technical assistance to implement diversion programs.	L	COM	Yes <70%		
8. <b>Outreach Materials.</b> Provide flyers, website, and other materials to educate residents, businesses/contractors.	L	COM SF/MFD	Yes 50-70%		
9. <b>No Cardboard in Trash.</b> Do not collect trash and contact customer to remove recyclables.	Varies <sup>5</sup>	ALL			X
10. <b>No Yard Trimmings in Trash.</b> Do not collect trash and contact customer to remove recyclables.	Varies <sup>5</sup>	ALL			X

# Services to Increase Diversion

LIST OF POTENTIAL NEW COLLECTION SERVICES	Diversion <sup>1</sup> Potential	SFD <sup>2</sup> MFD COM	Survey <sup>3</sup> Interest	Requires 3rd Party Contract Changes	Request Optional Pricing Recology
<b>NEW PROGRAMS</b>					
11. <b>Truck Re-Routing.</b> Collect “wet” trash (e.g. restaurants/MFD) separate from “dry” trash (e.g. offices) to increase recovery of paper and other recyclables.	H H	MFD COM			X
12. <b>Food Scraps Service Commercial.</b> Provide food scrap collection for businesses, schools, and special events.	M	COM	Split 50/50	X	X
13. <b>Food Scraps Residential.</b> Collect food scraps with yard trimmings cart and provide weekly service.	L	SFD MFD	Yes 70%	X	X
14. <b>Clean Up Service Residential.</b> Provide Dumpster for a Day (4-6 yard bin similar to Cupertino).	NA	SFD			X
15. <b>Clean Up Service Multi-Family.</b> Provide “move out” bulky good service.	L	MFD			



# Services to Increase Diversion

LIST OF POTENTIAL NEW COLLECTION SERVICES	Diversion <sup>1</sup> Potential	SFD <sup>2</sup> MFD COM	Survey <sup>3</sup> Interest	Requires 3rd Party Contract Changes	Request Optional Pricing Recology
<b>CUSTOMER CONVENIENCE</b>					
17. <i>Reward Program</i> . Reward customer for recycling right or increasing volume as determined by hauler.	L	SFD MFD			
18. <i>Free Holiday Tree Collection Multi-Family</i> .	L	MFD	No 59%		
19. <i>Free Backyard Collection Option for Seniors</i> (non-medical).	NA	SFD MFD			X
20. <i>Backyard Collection Option for Others</i> (fee).	NA	SFD MFD			X

# Services Offered by Recology

RECOLOGY PROPOSAL					
MOUNTAIN VIEW RECYCLING CENTER (Terra Bella)					
21. <b>Semi-Annual Green Environment Day.</b> Drop off confidential paper shredding; reuse/donation of books, toys, clothes, furniture; and free compost pick up.	L	SFD MFD	Yes 61% Yes 78-83%		
22. <b>Semi-Annual E-waste/Universal Waste Day.</b> Drop off computers, cell phones, CFL bulbs, etc.	L	SFD MFD	Yes 84%		
23. <b>Drop Off Usable Clothes.</b> For non-profit donation.	L	SFD MFD	Yes 61% Yes 83%		
24. <b>Drop Off E-waste.</b>	L	SFD MFD	Yes 84% Yes 83%		
25. <b>Discounted Backyard Home Composting Bins.</b>	L	SFD MFD	No 56% No 72%		
CURBSIDE / OTHER SERVICES					
26. <b>Curbside Collection.</b> CFL bulbs, cooking oil, cell phones.	NA	SFD MFD	Yes 79% (bulbs only) Yes 65-83%	X	
27. <b>Alternative Fuel Vehicles.</b> Wait until old diesel trucks need replacement, replace with compressed natural gas fuel. (City staff suggests replace all vehicles with CNG earlier and request optional pricing from hauler.)	NA	ALL			X
28. <b>Indoor Containers Commercial Food Scraps.</b> Provide free internal containers for food scraps to businesses.	NA	COM	No 56%		
29. <b>Indoor Containers Multi-Family Recycling.</b> Provide free recycling bags for collection and transport to outdoor complex bins.	NA	MFD			
30. <b>Household Hazardous Waste "Front Door" collection.</b> Provide through City's On Call Plus program (no fee).	L	SFD	Yes 54% No charge 63%		

## Collection Services

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# Council Direction Requested

- Interest in optional pricing:
  - Weekly recycling and yard trimmings
  - Residential Food Scraps with yard trimmings
  - Commercial Food Scraps
- Interest in services offered by Recology
- Support for “no cardboard/yard trimmings in trash”
- Willingness to pay for new/enhanced services

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# Next Steps

- Fall 2011  
Council reviews Scope of Services and RFP
- Winter 2011  
Evaluation of Recology's Response
- Early 2012  
Council approve Agreement Terms